

## UNITED STATES PARTMENT OF COMMERCE Patent and Trad mark Offic

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APPLICATION NO. FILING DATE FIRST NAMED INVENTOR ATTORNEY DOCKET NO.

09/483,434

01/14/00

MILLER

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ART UNIT PAPER NUMBER

**EXAMINER** 

1636

DATE MAILED:

11/07/00

Please find below and/or attached an Office communication concerning this application or proceeding.

**Commissioner of Patents and Trademarks** 

## Office Action Summary

Application No. 09/483,434

Applicant(s)

Miller, et al.

Examiner

Gerald G. Leffers Jr.

Group Art Unit 1636



X Responsive to communication(s) filed on Jul 24, 2000	•
☐ This action is <b>FINAL</b> .	
☐ Since this application is in condition for allowance except for for in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.	
A shortened statutory period for response to this action is set to exis longer, from the mailing date of this communication. Failure to rapplication to become abandoned. (35 U.S.C. § 133). Extensions 37 CFR 1.136(a).	espond within the period for response will cause the
Disposition of Claims	•
X Claim(s) 1-14	is/are pending in the application.
Of the above, claim(s) 4, 5, 8, and 11-14	is/are withdrawn from consideration.
Claim(s)	is/are allowed.
nn	is/are rejected.
Claim(s)	is/are objected to.
☐ Claims	
Application Papers	
🛮 See the attached Notice of Draftsperson's Patent Drawing Re	eview, PTO-948.
☐ The drawing(s) filed on is/are objected	to by the Examiner.
☐ The proposed drawing correction, filed on	is 🗆 approved 🗆 disapproved.
$\hfill\Box$ The specification is objected to by the Examiner.	
$\hfill\Box$ The oath or declaration is objected to by the Examiner.	
Priority under 35 U.S.C. § 119	
$\square$ Acknowledgement is made of a claim for foreign priority und	er 35 U.S.C. § 119(a)-(d).
☐ All ☐ Some* ☐ None of the CERTIFIED copies of the	e priority documents have been
received.	
received in Application No. (Series Code/Serial Number	
received in this national stage application from the Inte	
*Certified copies not received:	
X Acknowledgement is made of a claim for domestic priority ur	nder 35 U.S.C. § 119(e).
Attachment(s)	
X Notice of References Cited, PTO-892	C
Information Disclosure Statement(s), PTO-1449, Paper No(s).	
☐ Interview Summary, PTO-413  ☑ Notice of Draftsperson's Patent Drawing Review, PTO-948	
□ Notice of Informal Patent Application, PTO-152	
SEE OFFICE ACTION ON THE I	FOLLOWING PAGES

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## **DETAILED ACTION**

Receipt is acknowledged of applicants' response to the Restriction Requirement, filed 7/24/00, in which applicants elected with traverse Group I (claims 1-3 and 7). In response to the restriction requirement applicants argue that the Examiner has not met the burdensome search requirement for each of the groups and that the classification of groups I-III are the same. For Groups II, IV and VI this argument is not found to be persuasive because demonstration of either a different classification or a different non-patent literature search is all that is required to demonstrate a burdensome search on the part of the examiner. However, upon further review of the claims and the specification, Groups I, III and V have been rejoined because the non-patent literature required for each group is nearly co-extensive. The remaining groupings remain in place for the reasons of record (i.e. different and distinct inventions with different requirements for patent and non-patent searches). The requirement is still deemed proper and is therefore made FINAL.

Claims 4-5, 8 and 11-14 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected inventions, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in Paper No. 8, filed 7/24/00.

Receipt is also acknowledged of applicants Information Disclosure Statement filed 7/28/00. The signed and initialed PTO Form 1449 has been mailed along with this Action. Application/Control Number: 09/483,434

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Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-3, 6-7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1 and 6 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. The omitted steps are: any step of actual transduction of the biologically active molecule or oligonucleotide into the interior of the cell.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 6 is rejected under 35 U.S.C. 102(b) as being anticipated by Zanta et al (AH) or Baker et al (AA).

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Zanta et al teach in vitro gene delivery to hepatocytes with galactosylated polyethylenimine (Abstract; see entire document).

Baker et al teach the use of polyethylenimine as a simple, inexpensive and effective reagent for condensing and linking DNA to adenovirus for gene delivery to cells (Title; see entire reference). Baker et al teach that the PEI-adenovirus-DNA complex is contacted with target cells and the DNA incorporated into the cell via the adenoviral infectious route (Abstract).

Claims 9-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Al-Hakim et al (A) (see the entire patent).

Al-Hakim et al teach the construction and use of non-radioactive nucleic acid probes (Abstract). These probes feature an adduct of a basic macromolecule and biotin in which the macromolecule can be polyethylenimine (PEI) and in which the adduct can be cross-linked to a nucleic acid to form a non-radioactive nucleic acid hybridization probe (column 1, line 67 to column 2, line 68). The patent teaches that hybridization of the probe to the target nucleic acid sequence can be detected by an avidin-enzyme label complex which binds tightly to the biotinylated nucleic acid-PEI probe (column 3, lines 0-15).

## Conclusion

No claims are allowed.

Certain papers related to this application may be submitted to Art Unit 1636 by facsimile transmission. The faxing of such papers must conform with the notices published in the Official Art Unit: 1636

Gazette, 1156 OG 61 (November 16, 1993) and 1157 OG 94 (December 28, 1993) (see 37 C.F.R. § 1.6(d)). The official fax telephone numbers for the Group are (703) 308-4242 and (703) 305-3014. NOTE: If Applicant *does* submit a paper by fax, the original signed copy should be retained by applicant or applicant's representative. NO DUPLICATE COPIES SHOULD BE SUBMITTED so as to avoid the processing of duplicate papers in the Office.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gerald Leffers, Jr. whose telephone number is (703) 308-6232. The examiner can normally be reached on Monday through Friday, from about 9:00 AM to about 5:30 PM. A phone message left at this number will be responded to as soon as possible (usually no later than 24 hours after receipt by the examiner).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dr. George Elliott, can be reached on (703) 308-4003.

DAVID GUZO

PRIMARY EXAMINER

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0196.

G. Leffers, Jr.

Patent Examiner

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November 6, 2000